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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/371,588	08/10/1999	ARCHIBALD W. SMITH	99-038-TAP	9428

7590

05/08/2002

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EXAMINER

SNIEZEK, ANDREW L

ART UNIT

PAPER NUMBER

2651

DATE MAILED: 05/08/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

W

2001

Office Action Summary	Application No.	Applicant(s)	
	09/371,588	SMITH	
	Examiner	Art Unit	
	Andrew L. Sniezek	2651	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 February 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 18-23 is/are rejected.
- 7) ☒ Claim(s) 8-17 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input checked="" type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>2,3</u> . | 6) <input type="checkbox"/> Other: _____ |

Information Disclosure Statement

The information disclosure statements filed 1/18/00 and 2/12/01 have been considered.

Drawings

The drawings submitted 8/10/99 are informal. See attached PTO-948.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 21 and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Roth et al. (4,958,245).

Roth et al. teaches a compact optical tracking system for a magnetic tape including a magnetic head (15) positioning actuator (abstract) an optical servo module comprising an optical beam source (12), a detector ((34,, 46, 50) and an optical beam interference composition (20) that satisfies the claimed limitations set forth in claim 1. The limitations of claim 2 are satisfied by elements (52). Claim 21 sets forth limitations similar to those discussed above and therefore rejected for similar reasons. Claim 22 sets forth that the servo module is affixed to the side of the head. This feature is taught by the arrangement shown in figure 1 of Roth et al.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are

such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roth et al.

The teaching of Roth et al. is discussed above and incorporated herein. Claims 3 and 23 set forth that the optical servo module is fixed between the read and write heads. In Roth et al. the servo module is attached to the head. This placement difference is deemed to be a design choice that one of ordinary skill could have made through routine engineering practice. There does not appear to be any added benefit to this minor placement difference and therefore would have been obvious to vary the location of the module at various locations on the head without breaking the bounds of invention.

Claims 4, 5, 18 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roth et al. as applied to claims 1 and 2 above, and further in view of Smith (6,275,349).

The teaching of Roth et al. is discussed above and incorporated herein. Claim 4 further sets forth plural modules. Although not taught by Roth et al., is taught by Smith (figure 2 and 3) to improve the accuracy of placement of the head. It would have been obvious to one of ordinary skill in the art to incorporate such a teaching in Roth et al. for the purpose, i.e. to improve the accuracy of the head placement. The placement of these modules as set forth in claim 5 is satisfied by Smith and Roth et al. The limitations of claim 18 are satisfied by Roth et al. (column 5). The two or more slits, claim 20 are deemed inherent in Roth et al. (figure 1).

Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Roth et al. and Smith as applied to claims 4, 5, 18 and 20 above, and further in view of Farnsworth et al.

The use of a hologram although not taught by Roth et al. or Smith, is taught by Farnsworth et al. column 4 as a replacement for optical components. It would have been obvious to one of ordinary skill in the art at the time of the invention to replace the optical components as taught by Roth et al. and Smith with Hologram type components as taught by Farnsworth et al. since they produce similar results.

Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roth et al. and Smith as applied to claims 4 and 5 above, and further in view of Leonhardt et al. The teaching of Roth et al. and Smith are discussed above and incorporated herein. Claim 6 is directed to an assembly that houses the servo modules such that they face the back of the tape and claim 7 includes a grating assembly. Although not taught by Roth et al. or Smith having the servo modules facing the back of the tape is taught by Leonhardt et al. (figure 1) to decouple the recording surface from the servo system (abstract). As seen in (figure 1) gratings are present. It would have been obvious to one of ordinary skill in the art to incorporate the teaching of Leonhardt et al. into that of Roth et al. and Smith as applied to decouple the recording surface from the servo surface.

Allowable Subject Matter

Claims 8-17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The claimed specifics of the outboard reference grating and outboard servo module as set forth in claim 8 is neither taught by nor an obvious variation of the art of record.

Conclusion

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09/371,588
Art Unit: 2651

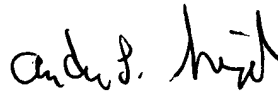
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The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Saliba et al. is cited of interest.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew L. Sniezek whose telephone number is 703-308-1602. The examiner can normally be reached on Mon.-Fri..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Hudspeth can be reached on 703-308-4825. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4700.


Andrew L. Sniezek
Primary Examiner
Art Unit 2651

A.L.S.
May 5, 2002